

REMARKS

In the Office Action mailed 29 August 2011, the Examiner reviewed claims 112-131. Claims 128-130 are withdrawn in response to a telephone restriction requirement. The Examiner has rejected claims 112-122 under 35 U.S.C. §102(b); has rejected claims 123-125 under 35 U.S.C. §103(a); has rejected claims 126 and 127 under 35 U.S.C. §103(a); and has rejected claim 131 under 35 U.S.C. §103(a).

Applicant **affirms** the 12 August 2011 **telephone election** of the invention of Group 1, claims 112-127 and 131, drawn to an environmental protection hood. The invention of Group II, claims 128-130, drawn to a breathing mask for use with an environmental hood, are withdrawn from consideration.

Applicant has **amended** claims 112, 114 and 115, **canceled** claims 128-131 and **added** claims 132 and 133.

Claims 112-127, 132 and 133 will be pending after entry of this amendment.

Support for the amendments made to independent claim 112 can be found in the description, for example, at page 5, third full paragraph, page 21, third full paragraph, and page 22, first full paragraph. Claims 114 and 115 have been amended for clarity purposes only. Claim 132 has been newly added and is supported by the description, for example, at page 22, first full paragraph. Claim 133 has been newly added and is supported by the description, for example, at page 20, last paragraph to page 21, second paragraph.

Rejection of Claims 112-122 under 35 U.S.C. §102(b)

The Examiner has rejected claims 112-122 under 35 U.S.C. §102(b) as being anticipated by Jones et al. (US Pat. 5,540,218).

Rejection of Claims 123-125 under 35 U.S.C. §103(a)

The Examiner has rejected claims 123-125 under 35 U.S.C. §103(a) as being unpatentable over Jones et al. (US Pat. 5,540,218) in view of Ansite et al. (US Pat. 5,467,766).

Rejection of Claims 126 and 127 under 35 U.S.C. §103(a)

The Examiner has rejected claims 126 and 127 under 35 U.S.C. §103(a) as being unpatentable over Jones et al. (US Pat. 5,540,218) in view of Bonhomme (US Pat. 6,520,177).

Rejection of Claim 131 under 35 U.S.C. §103(a)

The Examiner has rejected claim 131 under 35 U.S.C. §103(a) as being unpatentable over Jones et al. (US Pat. 5,540,218) in view of Ansite et al. (US Pat. 5,467,766).

The Cited Art

Jones (US 5540218) relates to a respiratory system that is suited to provide uncontaminated ventilation and oxygen to a user during ground and flight operations. The respiratory system has provisions to provide for a continuous flow of air or oxygen during failure of the ventilator and oxygen-generating systems. As shown in Figure 1, the respiratory system comprises a hood 16, a mask 20, and a manifold 22 provided separately from but connected to the mask 20. An air flow 32 and oxygen flow 42 are provided to the manifold 22. These are then provided via the manifold to the mask. A drinks facility 68 and intercom unit 60 are provided directly to the mask 20, separately from the manifold 22. The manifold 22 has a button socket arrangement for attachment to a vest of a user so that the user has convenient access to the manifold 22.

The Cited Art Distinguished

Claim 112 is allowable for the following reasons.

First: Jones is mainly concerned with a manifold which provides a single service, namely the provision of a breathing supply into a mask. The liquid and communications of Jones are provided directly to the mask and separately from the manifold. In contrast, embodiments of the present invention as claimed by claim 112 provide multiple services, such as air, liquid and communications into the interior of a hood each via the manifold.

Therefore, Jones does not disclose “a manifold... for receiving supply of a plurality of services needed within the hood, including air and at least one of a liquid and communications” as recited in amended claim 1. It would not have been obvious to modify the structure of Jones to provide services other than air or oxygen because doing so would require a substantial reconstruction and redesign of manifold 22. There is no evidence that such a complete redesign would have been obvious.

Second: The entire manifold of Jones is located outside of the hood. More specifically, and as discussed at column 3, lines 7 to 14, the manifold is worn on a vest of a user and coupled to the mask using hose-type fluid coupling means. A separate structure is therefore used to connect the manifold to the mask and provide services to the mask. Therefore the manifold does not use an element internal to the hood as set out in amended claim 1.

Therefore, Jones does not disclose “a manifold having... an element internal to the hood, for providing those plurality of services where required” as recited in amended claim 1. It would not have been obvious to modify the structure of Jones to include a manifold having an element external to the hood and an element internal to the hood because Jones teaches away from such a structure. In particular, Jones teaches to have the manifold provided separately from the mask and more specifically, to have the manifold attached to a vest of a user so that a user has convenient access to the manifold “to transition between ground and flight operational modes, and to respond to the failure conditions of the ventilator system 12 and the oxygen regulator 14.” See column 4, lines 17-27.

Third: Embodiments of the present invention provide a manifold that limits the necessity for a plurality of openings in the hood and thereby reduces the likelihood of failure due to leakage around such openings.

In contrast, Jones teaches to provide a breathing supply, drinks supply and intercoms at separate entry points into the mask and therefore require multiple openings in the mask in order to provide the services.

As shown in Figures 8A to 8C, Jones uses a very specific structure for its manifold. In particular, the manifold uses a duct 102 connected to a switch handle 82 which can be used to control whether to intercept a flow of air or a flow of oxygen from selected ports. Introducing ports to receive liquid or communications, or both, to the manifold would render the manifold of Jones unsatisfactory for its intended purpose.

Therefore claim 1 is novel and non-obvious over Jones.

Dependent claims 113 to 127, 132 and 133 are dependent on independent claim 112 and, by virtue of their dependency from this claim, are also novel and non-obvious over Jones for the same reasons as provided above.

CONCLUSION

In light of the above Remarks and the amendment to the claims, applicant submits that the application is in condition for allowance and action to that end is urged. If the Examiner believes a telephone conference would aid prosecution of this case in any way, please call the undersigned at (650) 712-0340.

The Commissioner is hereby authorized to charge any additional fee determined to be due in connection with this communication, or credit any overpayment, to our Deposit Account No. 50-0869 (MATH 1002-1).

Respectfully submitted,

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/James F. Hann/

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